

**CLAIMS:**

What is claimed is:

1. A method for performing multiple path input/output,  
5 the method comprising:
  - configuring a path control module for a device with a set of primary paths for the device;
  - configuring the path control module with a set of standby paths for the device; and

10 issuing transactions to the device using the set of primary paths.

  
- 2. The method of claim 1, wherein the step of issuing transactions includes:
  - 15 determining a first path within the set of primary paths;
    - issuing a transaction to the device using the first path; and
    - responsive to the transaction failing, failing over

20 to the set of standby paths.

  
  - 3. The method of claim 2, further comprising:
    - determining a second path within the set of standby paths; and

25 issuing the transaction to the device using the second path.

  
  - 4. The method of claim 2, further comprising:
    - marking the first path as down or inactive.

5. The method of claim 3, further comprising:  
responsive to the first path being restored, failing  
back to the set of primary paths.
- 5 6. The method of claim 2, wherein first path is  
determined using a round robin approach.
7. The method of claim 1, wherein the step of issuing  
transactions includes:
  - 10 determining a first path within the set of primary  
paths;  
issuing a transaction to the device using the first  
path;  
responsive to the transaction failing, determining a  
15 second path within the set of standby paths; and  
issuing the transaction to the device using the  
second path.
  8. The method of claim 7, further comprising:  
20 marking the first path as down or inactive.
  9. The method of claim 7, further comprising:  
responsive to the first path being restored, adding  
the first path back to the set of primary paths and  
25 adding the second path back to the set of standby paths.
  10. The method of claim 7, wherein first path is  
determined using a round robin approach.

11. The method of claim 1, wherein the device is a first device and the path control module is a first path control module, the method further comprising:

configuring a second path control module for the 5 second device with a set of primary paths for the second device, wherein the set of primary paths for the second device is the set of standby paths for the first device; and

10 configuring the path control module with the set of standby paths for the second device, wherein the set of standby paths for the second device is the set of primary paths for the first device.

12. An apparatus for performing multiple path 15 input/output, the apparatus comprising:

a path control module for a device, wherein the path control module is configured with a set of primary paths for the device and a set of standby paths for the device; and

20 a device driver for the device, wherein the device driver issues transactions to the device using paths selected from the set of primary paths.

13. The apparatus of claim 12, wherein the path control 25 module receives a transaction request from the device driver and determines a first path within the set of primary paths;

wherein the device driver issues a transaction to the device using the first path; and

wherein the path control module fails over to the set of standby paths responsive to the transaction failing.

5 14. The apparatus of claim 13, wherein the path control module determines a second path within the set of standby paths and wherein the device driver issues the transaction to the device using the second path.

10 15. The apparatus of claim 13, wherein the path control module fails back to the set of primary paths responsive to the first path being restored.

15 16. The apparatus of claim 12, wherein the path control module determines a first path within the set of primary paths;

wherein the device driver issues a transaction to the device using the first path;

20 17. The apparatus of claim 16, wherein the path control module determines a second path within the set of standby paths responsive to the transaction failing; and

wherein the device driver issues the transaction to the device using the second path.

25 17. The apparatus of claim 16, wherein the path control modules adds the first path back to the set of primary paths and adds the second path back to the set of standby paths responsive to the first path being restored.

18. A computer program product, in a computer readable medium, for performing multiple path input/output, the computer program product comprising:

instructions for configuring a path control module  
5 for a device with a set of primary paths for the device;

instructions for configuring the path control module with a set of standby paths for the device; and

instructions for issuing transactions to the device using paths selected from the set of primary paths.

10

19. The computer program product of claim 18, wherein the instructions for issuing transactions include:

instructions for determining a first path within the set of primary paths;

15 instructions for issuing a transaction to the device using the first path; and

instructions, responsive to the transaction failing, for failing over to the set of standby paths.

20 20. The computer program product of claim 18, wherein the instructions for issuing transactions include:

instructions for determining a first path within the set of primary paths;

25 instructions for issuing a transaction to the device using the first path;

instructions, responsive to the transaction failing, for determining a second path within the set of standby paths; and

30 instructions for issuing the transaction to the device using the second path.